

Tamarack in Indiana.

Since writing my paper on the "Origin of the Flora of Indiana," I have received through Prof. Coulter a specimen of wood from Johnson county, in the southern part of this state, which proved to be *Larix Americana*. This wood was found buried in the blue clay underlying the glacial drift, and had been so well preserved that one would easily distinguish it as a conifer at sight, while its tissue structure was readily recognized as that of *L. Americana*. I have also heard of other cases in which pieces apparently of the same species have been found in various similar situations throughout the southern part of the state. Now we have only a very few in exceedingly favorable places in extreme northern counties. Prof. Heer found at least some of its near congeners among the specimens from the cretaceous rocks of Arctic North America. These facts help confirm the conclusion that our flora originated in the far north, was driven south during the glacial period and again north during subsequent periods, and distributed as we now find it. H. THOMSON.

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The Fertilization of *Campanula Americana*.

In a paper under this title read before the A. A. A. S., and published in this journal (Vol. x. p. 349), I described the introversion of the hairs on the style, and referred to Strasburger's confirmatory account of *C. rapunculoides*, in which, however, he gives no indication that the matter had previously been worked out in another species. My attention has been called to a paper by W. Wilson, entitled "Further remarks on the pollen-collectors of *Campanula*," etc., in Hooker's *Journal of Botany*, vii (1848). 92. Respecting *C. rotundifolia* Mr. Wilson says: "The hairs . . . are simply *pollen-collectors*, and nothing more; they discharge this function admirably; and having performed it they retire, each within its own cell, by virtue, I suppose, of some action of exosmosis. . . . The whole of the exerted hair is retracted into its base which forms an embedded cavity in the substance of the style." While this matter is only incidentally mentioned in my paper, it is proper that credit be given to Wilson for an observation far antedating Strasburger's and mine. Thus do we, for lack of knowing what has been done, grind over and over the same grist. C. R. BARNES.

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CURRENT LITERATURE.

Report of the Botanist to the New York Agricultural Experiment Station. By J. C. Arthur. Extracted from the third annual report for 1884, pp. 353-385, and from fourth annual report for 1885, pp. 241-265. 8°.

Professor Arthur was appointed botanist to the New York Agricultural Experiment Station in March, 1884. These two reports embrace the results of his investigations for the years 1884 and 1885. These have been mostly confined to the investigation of fungous diseases, and especially those of cultivated plants. The great importance of this line of study is evident to all who know anything of the magnitude of the losses incurred by fungous parasites. Four introductory pages of the first report are occupied with a statement of the nature and habits of fungi, following which are the details of various experiments with several injurious species. The list of investigations includes diseases of the pear, apple, quince, peach, tomato, oats, and other plants of the field and garden. The investigations upon the pear blight appropriately take a leading place in both reports, and as this work has been of such importance as to attract the notice of the general press of the country, it is only necessary to here state that the cause of pear blight has been demonstrated to the satisfaction of